## IN THE UNITED STATES DISTRICT COURT
## FOR THE DISTRICT OF DELAWARE

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| INTERNATIONAL BUSINESS MACHINES CORPORATION, ) ) ) | |
| Plaintiff, ) ) | C.A. No. 22-00590-VAC |
| v. ) ) | |
| ZYNGA INC., and CHARTBOOST, INC., ) ) | |
| Defendants. ) | |

### DEFENDANTS ZYNGA INC. AND CHARTBOOST, INC.'S OPENING BRIEF IN SUPPORT OF ITS PARTIAL MOTION TO DISMISS COMPLAINT PURSUANT TO FED. R. CIV. P. 12(B)(6) AND 35 U.S.C. § 101

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## I.      **INTRODUCTION**

IBM's complaint alleges that defendants Zynga and Chartboost (collectively "Zynga")

infringe five separate patents covering a diverse range of technologies, from single-sign-on to dual-

MVC architecture.  Count four, which alleges infringement of U.S. Patent No. 8,315,904 (the

"'904 patent", attached as Ex. C to Plaintiff's Complaint), fails at the outset because the claims are

invalid under 35 U.S.C. § 101.

Patent law protects only concrete and tangible inventions. It does not protect abstract ideas,

even when they are claimed in a particular context or in connection with conventional computer

technology.  *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 573 U.S. 208, 223 (2014).  The '904 patent

violates that principle.  Its claims are directed to the abstract idea of generating and organizing

marketing promotions—a longstanding business practice consisting of basic data manipulation

steps (like "generating," "searching," and "assigning" to a list) that the '904 patent merely

facilitates though the use of conventional computers.  And, as discussed below, the Federal Circuit

has consistently recognized that the manipulation and organization of data is a patent-ineligible

concept.

The claims of the '904 patent also fail to offer any concrete technological innovation or

solve any computer-based problem.  They call for the automation of steps that could be performed

by a human marketer in order to address *business* problems like increasing administrative

efficiency and providing more personalized advertising.  And instead of specifying how, from a

technical perspective, the abstract idea is implemented, the claims simply describe data

manipulation steps using functional language and then situate that idea in a generic computer

environment.  The claims of the '904 patent fail the *Alice* test and, therefore, count four of

Plaintiff's complaint should be dismissed.

## II.     FACTUAL BACKGROUND

The '904 patent is titled "Organization for Promotion Management."   It discusses "promotion management software" that could streamline or automate aspects of running a marketing campaign.  *Id.* at 1:23-42; *see also id.* at 2:52-54 (noting that "promotions" are "specific marketing communications that are typically provided in a marketing campaign").

According to the patent, marketers face "challenges in managing promotions" due to the huge variety of "situations in which promotions are used."  *Id.* at 1:7-10.  Different industries have "different types of promotions" that "communicate different types of products and services," so marketers must "produce a potentially large variety of promotions."  *Id.* at 1:10-15.  And marketers must also "assign [promotions] to a potentially large variety of contacts."  *Id.* at 1:16-17.

The '904 patent purports to handle this process more efficiently by using a computer to "produc[e] a promotion list for a promotion management campaign."  *Id.* at Abstract.  According to the specification, the software helps marketers *create* promotions by providing "promotion templates" with a variety of fields (known as "attributes") which could then be filled in to generate new "promotion instances."  *Id.* at 3:65-4:21; 6:54-58; Fig 7 (flowchart for producing a promotion template); Fig. 8 & 9 (depicting the creation of promotions from a promotion template).  The software also permits marketers to search existing promotion instances and "assign" selections to a "promotion list," which is (like it sounds) a "collection of one or more promotion instances."  *Id.* at 16:17-20; Fig. 17 (depicting promotion lists).  Marketers could then manipulate the promotion instances in the promotion list as a unit.  *Id.* at 16:18-20.

Claim 1 of the '904 patent recites a "computer implemented method" capturing these broad, functional concepts:   generating a promotion using a template, searching through promotions, and assigning selected promotions in a promotion list.  The claim reads:

1. A computer implemented method comprising:

> producing, by one or more computers, a promotion list for a promotion management campaign by:

>> generating, by one or more computers, a promotion instance from a promotion template;

>> receiving, by one or more computers executing marketing campaign software, a search query that includes one or more attributes of a promotion instance;

>> searching one or more data repositories for promotion instances having attributes corresponding to the attributes specified in the search query;

>> returning a list including one or more promotion instances having the attributes corresponding to the attributes specified in the search query;

>> receiving, by the one or more computers, a selection of one or more promotion instances, from the returned list, to be included in the promotion list;

>> assigning the selected promotion instances to the promotions list; and

>> storing the promotion list in an electronic medium.

*Id.* at 24:48-68 (Claim 1).  This motion uses claim 1 as representative,[1] but also addresses both the remaining claims and the specific elements IBM referenced in the Complaint.

On May 2, 2022, IBM brought the present suit against Zynga, alleging infringement of five of IBM's patents, including the '904 patent.  *See* D.I. 1 ("Compl.").

III.   **LEGAL STANDARD**

The Supreme Court's *Alice* decision established a two-part framework for determining eligibility under § 101.  573 U.S. at 217-18.  First, a court determines whether the claims are "directed to" a patent-ineligible concept, such as an abstract idea.  *Id*.  If the claim is directed to an abstract idea, the Court proceeds to step two and asks whether the claim elements, considered

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[1] Claim 1 is representative because all of the claims of the '904 patent "are substantially similar and linked to the same abstract idea."  *Content Extraction & Transmission LLC v. Wells Fargo Bank, N.A.*, 776 F.3d 1343, 1348 (Fed. Cir. 2014); *see infra* Section IV.C.

"both individually and 'as an ordered combination,'" to determine whether the additional elements

"transform the nature of the claim" into a patent-eligible application. *Id.*

To survive a motion to dismiss, a complaint must contain sufficient factual matter, accepted

as true, to "state a claim to relief that is plausible on its face." *Ashcroft v. Iqbal*, 556 U.S. 662, 678

(2009) (citation omitted). However, "the tenet that a court must accept as true all of the allegations

contained in a complaint is inapplicable to legal conclusions," *id.*, and to "allegations that

contradict matters properly subject to judicial notice or by exhibit,' such as the claims and the

patent specification." *Secured Mail Sols. LLC v. Universal Wilde, Inc*., 873 F.3d 905, 913 (Fed.

Cir. 2017).

Because the ultimate question of whether a claim recites patent-eligible subject matter

under § 101 is a question of law, a district court may resolve the issue of patent eligibility by way

of a motion to dismiss. *See, e.g.*, *OIP Techs., Inc. v. Amazon.com, Inc*., 788 F.3d 1359, 1362 (Fed.

Cir. 2015); *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat. Ass'n*, 776 F.3d

1343, 1351 (Fed. Cir. 2014) (affirming finding of ineligibility made on 12(b)(6) motion); *Genetic*

*Techs. Ltd. v. Merial LLC*., 818 F.3d 1369, 1373 (Fed. Cir. 2016) ("We have repeatedly recognized

that in many cases it is possible and proper to determine patent eligibility under 35 U.S.C. § 101

on a Rule 12(b)(6) motion."). Claim construction is not a prerequisite to a § 101 dismissal. *Aatrix*

*Software, Inc. v. Green Shades Software, Inc.*, 882 F.3d 1121, 1125 (Fed. Cir. 2018).

IV.    **ARGUMENT**

A.    *Alice* **Step One:  The Claims Are Directed To The Abstract Idea Of Generating and Organizing Promotions**

"The 'abstract idea' step of the [*Alice*] inquiry calls upon [the Court] to look at the focus

of the claimed advance over the prior art to determine if the claim's character as a whole is directed

to excluded subject matter." *Affinity Labs of Texas, LLC v. DirecTV, LLC*, 838 F.3d 1253, 1257

(Fed. Cir. 2016) (quotation omitted). In deciding questions of patent eligibility, the court may consider whether the steps of the claim "can be performed in the human mind, or by a human using a pen and paper," *PersonalWeb Techs. LLC v. Google LLC*, 8 F.4th 1310, 1317 (Fed. Cir. 2021) (internal citations omitted), compare the claims to those previously analyzed in other judicial decisions, *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1351–54 (Fed. Cir. 2016), or ask "whether the claims are directed to 'a specific means or method' for improving technology or whether they are simply directed to an abstract end-result," *RecogniCorp, LLC v. Nintendo Co.*, 855 F.3d 1322, 1326 (Fed. Cir. 2017).

Applying each of those analytic frameworks here confirms that the claims of the '904 patent are directed to the abstract idea of generating and organizing promotions.

### 1.    The Claims Merely Automate Data Manipulation And Organization Steps That Could Be Performed By A Human

Claim 1 of the '904 patent recites seven functional steps:

- [a] *generating* a promotion from a template;

- [b] *receiving* a search query that includes attributes of a promotion;

- [c] *searching* a data repository based on the query;

- [d] *returning* a list of promotions corresponding with the query;

- [e] *receiving* a selection of the returned promotions to be included in a

    promotion list;

- [f] *assigning* the selected promotions to the promotion list; and

- [g] *saving* the list.

*See* 24:48-67. These steps provide for simple and generic data manipulation and organization executed in the context of marketing promotions. Step [a], the generating step, is a form of data manipulation: filling in template fields to create a new promotion. Steps [b]-[e] similarly provide

for data manipulation—as IBM puts it, they recite "filtering" a database of promotions according to user-selected criteria. Compl. ¶¶ 62-64. And steps [f]-[g], the assigning and saving steps, merely organize selected data into a list and save the list.

As an initial matter, such a claim is abstract because the steps could be performed entirely by a human being without a computer. To illustrate, consider an old-fashioned human marketer working on a campaign for holiday shopping. She could begin by generating promotions using a template, perhaps by updating the fields from a promotion from the prior year. She could also receive a request from her boss to identify promotions with a specific attribute—say offers for free gift-wrapping—and then search through the agency's records to identify promotions that correspond with her boss's query. Once she identifies the promotions matching the query, she could assign them (or some subgroup of them) to a promotions list by photocopying them and placing them together in a folder. *See also* '904 patent at Figs. 17 and 18 (showing promotion lists in folder form). And she would then store the promotion list by putting the folder in her files.

Thus, "with the exception of generic computer-implemented steps, there is nothing in the claims themselves that foreclose them from being performed by a human, mentally or with pen and paper." *Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1318 (Fed. Cir. 2016) (internal citation omitted). Indeed, both the specification and IBM's complaint appear to recognize that the claimed advance of the '904 patent is merely using a computer to automate and streamline tasks otherwise performed by human marketers and to thereby increase capacity and efficiency. *See* '904 patent at 8:26 (producing promotions versions by "automatic[ally]" populating fields from tables "provides tremendous scalability"); Compl. ¶ 67 (describing how invention "allowed for ... more efficient and effective" campaigns due to "the ability to generate a large repository of promotion instances" and to "update[] [promotion lists] without user intervention.").

The Federal Circuit has recognized these characteristics as a "telltale sign of abstraction." *PersonalWeb*, 8 F.4th at 1316 (claims for data management tools are "directed to a medley of [human] mental processes" and therefore abstract); *See e.g.*, *Mortg. Application Techs., LLC v. MeridianLink, Inc.*, No. 2020-1504, 2021 WL 97347, at *4 (Fed. Cir. Jan. 12, 2021) ("We have previously held that a process that can be and has been performed by humans without the use of a computer … is an abstract idea."); *Mortg. Grader, Inc. v. First Choice Loan Servs. Inc.*, 811 F.3d 1314, 1324 (Fed. Cir. 2016) (claims to facilitate anonymous loan shopping were abstract because they "could all be performed by humans without a computer").  Similarly, this Court explained in *Blackbird Tech LLC v. Advanced Discovery Inc.*, that *"*[h]umans have long been capable of sorting and organizing data, and using a computer to automate this concept is abstract."  No. CV 16-413-GMS, 2017 WL 2734725, at *4 (D. Del. June 26, 2017); *see also Cogent Medicine, Inc. v. Elsevier Inc.*, 70 F. Supp. 3d 1058, 1063-64 (N.D. Cal. 2014) (claims directed to "maintaining and searching a library of information" held abstract because they were "little different than the basic concept of organizing a physical library" and merely "describe[d] a computerized method of performing the same task").

Because claim 1 simply provides for a "computer implemented" version of the *human* business practice embodied in our example, it constitutes an abstract idea under *Alice* step one.

### 2.     The Claims Are Comparable to Other Claims Held Ineligible Under § 101

Additionally, the claims as a whole are abstract because they recite nothing more than the manipulation and organization of data—which are "a familiar class of claims 'directed to' a patent-ineligible concept."  *Elec. Power Grp.*, 830 F.3d at 1352-54 (invalidating claims directed to "collecting information, analyzing it, and displaying certain results of the collection and analysis"). In *Intellectual Ventures I LLC v. Capital One Financial Corp.*, for instance, the Federal Circuit

held that claims directed to "a system and method for editing XML documents" were invalid because they merely claimed the abstract idea of "collecting, displaying and manipulating data." 850 F.3d 1332, 1339-40 (Fed. Cir. 2015).  Similarly, in *Content Extraction*, the Federal Circuit held that claims "drawn to "1) collecting data, 2) recognizing certain data within the collected data set, and 3) storing that recognized data in a memory" were abstract and not patent eligible.  776 F.3d at 1347; *iLife Techs., Inc. v. Nintendo of Am., Inc.*, 839 Fed. App'x 534, 537 (Fed. Cir. 2021) ("We have routinely held that claims directed to gathering and processing data are directed to an abstract idea.").  Here, too, the claims are directed to nothing more than manipulating data (here, generating promotions from a template) and organizing data (here, searching a database and saving selected promotions in a list).  That is an abstract idea.

Courts have likewise found individual aspects of the asserted claims—like using a template and filtering a database through search—to be directed abstract ideas.  This only confirms the subject-matter invalidity of the overall claims.  *ChargePoint, Inc. v. SemaConnect, Inc.*, 920 F.3d 759, 771 (Fed. Cir. 2019) ("adding one abstract idea to another abstract idea does not render the claim non-abstract"); *FairWarning v. Iatric Systems*, 839 F.3d 1089, 1093-94 (Fed. Cir. 2016) (claim combining three abstract ideas was abstract).

For example, templates are a well-known and widely used tool for manipulating data and simplifying repetitive tasks.  Multiple courts have therefore considered patents directed to the use of templates, and consistently found them abstract.  In *Hyper Search, LLC v. Facebook, Inc.*, this Court held that patent claims "directed to … storing a template, creating a document based on that template, and storing the document for access by the public" were unpatentable abstract ideas.  No. 17-1387-CFC-SRF, 2018 WL 6617143, at *6 (D. Del. Dec. 17, 2018) (noting that "[o]ther courts have held that patents directed to using templates to collect or generate documents, such as web

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pages, are abstract ideas").  This Court reached the same conclusion in *CyberFone Sys., Inc. v. Lexmark Int'l, Inc.*, which found claims directed to "entering and processing data in response to questions on forms or templates" abstract and unpatentable.  137 F. Supp. 3d 648, 659 (D. Del. 2015); *see also Clear with Computers, LLC v. Altec Indus., Inc.*, Nos. 6:14-cv-79 & 6:14-cv- 89, 2015 WL 993392, at *4 (E.D. Tex. Mar. 3, 2015), *aff'd*, 636 F. App'x 1015 (Fed. Cir. 2016) (holding that "dynamically building a template" and "fill[ing] in the template to produce the single composite visual output" was an abstract idea and therefore patent-ineligible under § 101).  The invocation of a template in the '904 claims therefore does not alter the conclusion that the claims are directed to the abstract idea of data manipulation and organization.

Courts have likewise recognized that claims directed to performing a search or otherwise filtering data are merely a kind of data manipulation, and therefore an abstract idea.  In *Intellectual Ventures I LLC v. Erie Indemnity Company*, for instance, the Federal Circuit held that claims reciting "[a] method for searching a database of information" were abstract as they performed the well-established activity of "organizing and accessing records through the creation of an index-searchable database."  850 F.3d 1315, 1327 (Fed. Cir. 2017) (invention is drawn to "abstract idea of 'creating an index and using that index to search for and retrieve data"').  Similarly, this Court held in *Blackbird Tech LLC v. Advanced Discovery Inc.*, that claims "drawn to the steps of 1) conducting a search based on a search query, 2) determining a concept associated with a search query, 3) and then ranking the search results" were directed to an abstract idea.  No. CV 16-413-GMS, 2017 WL 2734725, at *4 (D. Del. June 26, 2017); *see also BASCOM Glob. Internet Servs. v. AT&T Mobility LLC*, 827 F.3d 1341, 1348 (Fed. Cir. 2016) (holding that "filtering content is an abstract idea because it is a longstanding, well-known method of organizing human behavior, similar to concepts previously found to be abstract"); *DietGoal Innovations LLC v. Bravo Media*

*LLC*, 33 F. Supp. 3d 271, 287 (S.D.N.Y. 2014), *aff'd*, 599 F. App'x 956 (Fed. Cir. 2015) (finding ineligible claims that recite creating lists by retrieving information stored in a database, manipulating data based on user input, making computations from stored data, and displaying the results). As in those cases, the generic filtering process claimed here—"receiving … a search query," "searching one or more data repositories" based on the query; "returning a list" of promotions; and "receiving … a selection" of the promotions "from the returned list"—is classic data manipulation that constitutes an abstract idea. '904 patent at 24:48-67; *see also* Compl. ¶¶ 62-64 (confirming that these steps provide for "filtering" based on a user query).

### 3. The Claims Are Not Directed To An Improvement In Computer Functionality

In the context of a computer-implemented invention, courts also assess subject-matter eligibility by "ask[ing] whether the claims are directed to 'an improvement in the functioning of a computer,' or merely 'adding conventional computer components to well-known business practices.'" *Affinity Labs*, 838 F.3d at 1270 (quoting *Enfish*, 822 F.3d at 1338). In other words, the claims must recite "a specific, unconventional technological solution ... to a technological problem" to be patent eligible. *Amdocs*, 841 F.3d at 1306. The '904 claims fail on both counts.

To start, both the specification and IBM's complaint appear to recognize that the problems supposedly solved by the '904 patent are *business problems* rather than technical problems. The specification highlights the ability of promotion management software to provide "scalability in one-to-one promotion personalization," 8:39-41, and emphasizes the efficiency of enabling tasks like filling in templates or searching for promotions to occur "automatically" or "without further user intervention." '904 patent at 17:40-59; 8:26; 17:38-40 (noting how software could "dramatically speed[] up an organization's ability to scale and maintain a large number of campaigns."). IBM similarly characterizes the invention as addressing the "time consuming and

resource intensive" nature of promotion creation, marketers' growing "interest[] in personalized advertising," and the "need … to create promotions efficiently while grouping related promotions together so they could then be provided to a larger number of customers." Compl. ¶¶ 54, 56. And while IBM suggests that the patent is focused on the "complexity of online advertising," Compl. ¶ 53, the claim language is not so limited and the specification makes clear the invention can assist in managing campaigns across *any* communication channel, including "telemarketing" and "direct mail." '904 patent at 18:11-14. These problems—the need increase efficiency in order to provide more personalized advertising at scale—are *business problems* in no way unique to the computer context.

Even if providing personalized advertising or increasing efficiency were a technological problem (it is not), the '904 patent does not claim a technological solution. The asserted claims simply recite high-level functional steps—like "generating … a promotion instance from a promotion template" and "assigning the selected promotion instances to the promotion list," *id.* at 24:52-66—without disclosing any "particular way of programming or designing the software" or "how this would be technologically implemented." *Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1241, 1244 (Fed. Cir. 2016). Such "vague, functional" terms, "devoid of technical explanation as to how to implement the invention," are abstract. *In re TLI Commc'ns LLC Patent Litig.*, 823 F.3d 607, 615 (Fed. Cir. 2016); *Two-Way Media v. Comcast*, 874 F.3d 1329, 1337 (Fed. Cir. 2017) (finding claims directed to routing information abstract because they "[did] not sufficiently describe how to achieve these results in a non-abstract way"); *see also TriPlay, Inc. v. WhatsApp, Inc.*, No. CV-13-1703-LPS-CJB, 2018 WL 1479027, at *9 (D. Del. Mar. 27, 2018) (rejecting the argument that claims reciting "template-based messaging" "improv[ed] a technological process

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via the use of templates" and observing that "efficiency is the fundamental benefit of templates in any context").

Moreover, the claims recite only generic computer components—"one or more computers" and "one or more data repositories." '904 patent at 24:49-56. And nothing in the specification "suggests that the [computer system] itself is improved from a technical perspective, or that it would operate differently than it otherwise could." *ChargePoint*, 920 F.3d at 767-68 (noting that, at step one, "the specification may be useful "to understand 'the problem facing the inventor' and, ultimately, what the patent describes as the invention"). When, as here, nothing about the concept behind the patent claims depends upon their implementation by computers, the claims are not "'rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks.'" *DDR Holdings, LLC v. Hotels.com L.P.*, 773 F.3d 1245, 1257 (Fed. Cir. 2014)); *Symantec Corp.*, 838 F.3d at 1318; *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1372 (Fed. Cir. 2011) (invalidating a method claim because the steps "can be performed in the human mind, or by a human using a pen and paper").

Finally, IBM cannot save the claims from abstractness by focusing on how the computerized method (in particular the filtering steps) solves the problem of "finely tailor[ing] the promotion instances delivered to the target audience." *See, e.g.*, Compl. ¶ 64. Courts routinely hold that filtering and manipulating data with a computer in order to provide targeted advertising remains an abstract idea. In *Intellectual Ventures I LLC v. Capital One Bank (USA)*, ("*Capital One I*"), for instance, the Federal Circuit found invalid claims directed to displaying web content based on a user's personal characteristics (e.g., location) and navigation data (e.g., time of day). 792 F.3d 1363, 1369-71 (Fed. Cir. 2015) ("[t]his sort of information tailoring is 'a fundamental … practice long prevalent in our system.") (quoting *Alice*, 573 U.S. at 219). And in *Bridge & Post*,

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*Inc. v. Verizon Commc'ns Inc.,* the Federal Circuit found that claims involving collecting information about a user, storing that information, and using it to produce customized content were directed to the abstract idea of "[using] persistent identifiers to implement targeted marketing": a "form of tailoring information based on [provided] data, which we have previously held is an abstract idea." 778 F. App'x 882, 887 (Fed. Cir. 2019). This Court reached a similar conclusion in *Sound View Innovations, LLC v. Facebook, Inc.*, which invalidated claims directed to "offering more meaningful information … based on [a user's] preferences and the preferences of a group of people with whom he is in pre-defined relationships," 204 F. Supp. 3d 655, 662 (D. Del. 2016) (noting that the patent offered a non-technological improvement to the non-technological problem of providing a user with targeted information).[2] The import of all these authorities is plain: data manipulation and organization, even for the purpose of providing targeted content, is uniformly found to be abstract.

In short, whether by case analogy, functional depiction, longstanding "brick and mortar" practice, or assessment of the problem and solution, it is apparent that the asserted claims are directed to an abstract concept under *Alice* step one.

## B.    *Alice* **Step Two:  The Claims Include No Inventive Concept**

Where, as here, the claims are directed to an abstract idea under step one, the inquiry moves on to whether the elements of the claims, considered "both individually and 'as an ordered combination,'" recite an "inventive concept" that is "sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [abstract idea] itself." *Alice*, 573 U.S. at 218.

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[2] *See also Tuxis Techs., LLC v. Amazon.com, Inc.*, 2014 WL 4382446, at *5 (D. Del. Sept. 3, 2014) ("[T]argeted advertising is [a well-known] concept, insofar as matching consumers with a given product or service 'has been practiced as long as markets have been in operation.'"); *OpenTV, Inc. v. Netflix Inc.*, 76 F. Supp 3d 886, 893 (N.D. Cal. 2014) ("The concept of gathering information about one's intended market and attempting to customize the information then provided is as old as the saying, 'know your audience'").

The claims of the '904 patent lack an inventive concept because they do not recite anything significantly more than the abstract idea of generating promotions and organizing them into a list.

As discussed above, the claimed steps, whether considered separately or apart, are generic and functionally-described data manipulation processes, all of which constitute abstract ideas. *SAP Am., Inc., v. InvestPic, LLC*, 898 F.3d 1161, 1168-70 (Fed. Cir. 2018) (finding no inventive concept when the allegedly inventive aspects were "themselves in the realm of abstract ideas"). And, in the physical realm, claim 1 merely recites generic computer components—"one or more computers" and "one or more data repositories." '904 patent at 24:49-56. Nothing in the patent's disclosure teaches that the claimed computer components are "anything other than off-the-shelf, conventional computer, network, and display technology for gathering, sending, and presenting the desired information." *Elec. Power Group*., 830 F.3d at 1355; *Smart Sys. Innovations, LLC v. Chi. Transit Auth*., 873 F.3d 1364, 1373–74 (Fed. Cir. 2017) (generic processers and interfaces did not transform abstract claims into patent-eligible subject matter). In fact, the patent makes clear that the method can be implemented using "any one or more processors of any kind of digital computer" and that data can be stored on "all forms of non-volatile memory" including "internal hard disks" and "removable disks" like CD ROMs. '904 patent at 23:37-55. As the Federal Circuit has made clear, "[m]erely reciting the use of a generic computer or adding the words 'apply it with a computer' cannot convert a patent-ineligible abstract idea into a patent-eligible invention." *Secured Mail*, 873 F.3d at 911; *see also In re TLI*, 823 F.3d at 613 (claim elements which perform generic computer functions such as processing or storing data remain abstract under step two).

IBM attempts to create a factual dispute about inventiveness by alleging that various aspects of the invention—particularly (1) the use of templates, Compl. ¶¶ 58-60; (2) a supposed "bottom up" distribution structure, *see id.* ¶¶ 58, 61, 67; and (3) the use of promotion codes, *id.*

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¶ 66—were unconventional advances over prior art. But none of these concepts are actually captured by the claims, so they cannot save the claims at step two. *RecogniCorp*, 855 F.3d at 1327; *ChargePoint*, 920 F.3d at 769 ("any reliance on the specification in the § 101 analysis must always yield to the claim language"). And even if these concepts were described in the claims, they are merely additional abstract ideas that cannot serve as an inventive concept. *See SAP Am.*, 898 F.3d at 1168-70.

IBM first alleges that the invention "leveraged unconventional promotion templates," Compl. ¶ 58, but nothing in the claim language requires the template to have any particular characteristics or capacities. *See* '904 patent at 24:52-53. Moreover, the supposedly "unconventional" characteristics IBM identifies, *see* Compl. ¶ 59, are simply inherent aspects of templates. *All* templates can be used to iteratively create new "versions"; that is what happens when you fill in the blanks. *All* templates can be used as a basis for new templates by merely crossing out existing fields, adding in new fields, or filling in a subset of the fields while leaving others blank. And the "parameterized attributes" IBM describes, *see* Compl. ¶ 59, are nothing more than the concept of including a placeholder field that can be filled in later. '904 patent at 8:11-30 (noting that the field can be filled in either "manually" *or* by "populat[ing] from a database or list" as in a mail merge); *see also id.* at 5:24-27; 6:1-8; 6:58-62; Fig. 10 (diagram depicting "data-driven parameterization" of promotions); Compl. 54-55 (mail merge analogy). None of these supposedly "unconventional" characteristics would change the fact that the use of templates is an abstract idea. *See supra* 8-9.

IBM also makes a series of allegations regarding the patent's supposedly inventive *distribution* of promotions. *See* Compl. ¶ 67 (alleging "massive improvements in promotion distribution"). While these allegations are difficult to parse, the core idea seems to be that, in the

prior art, marketers would "create a small number of standardized promotions" which could be modified manually or with "mail merge" and then sent to relevant consumers, whereas the '904 patent called for creating "a large number of promotion instances" and then "finding and delivering appropriate and relevant promotions." *Id. ¶¶* 53-55, 61; *see also id.* ¶ 67 (describing "inventive" "ability to generate a large repository of promotion instances" and then "distribute the most relevant promotions"). IBM characterizes this as "a bottom-up strategy, in contrast to the top-down strategy of the prior art." *Id*. *¶¶* 58, 67.

This theory fails on multiple levels. First of all, the claims do not place any restrictions on the number of promotions that are generated or the size of the data repository that is searched. And, fatally for IBM's theory, the claims do not discuss the *distribution* of the promotions in any way. They simply recite generating promotions and searching a database, then conclude with the creation and storage of a list. The absence of these concepts from the claims is confirmed by the specification, which describes the "top-down" and "bottom-up" approaches as different varieties of an unclaimed "group management process 40b" for "manag[ing] the assignment of promotion instances to [contact] groups." '904 patent at 8:52-54; Fig. 11 (top-down diagram); Fig. 12 (bottom-up diagram); *see also id.* 11:64-66 (noting that the two approaches are not distinct; they can be "arbitrarily intermixed" and the software would support either or both.). "To save a patent at step two, an inventive concept must be evident in the claims." *RecogniCorp,* 855 F.3d at 1327. The "bottom-up" concept is not captured by the claims, so it cannot serve as an inventive concept.

Additionally, the "bottom up" approach is itself an abstract idea. Generating a large number of promotions and then finding an "appropriate and relevant" one to distribute is no different than using the greeting card aisle at CVS—Hallmark generates a large database of potential communications from which customers can select and deliver an appropriate and relevant

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card for a given recipient and occasion. The same idea is in play when a cover band compiles a large list of potential songs and then selects the best setlist for a particular event. This abstract concept of creating "a large repository" and then filtering down, even if captured by the claims, would not transform the underlying abstract idea of generating and organizing promotions into a patent-eligible invention.[3]

Finally, IBM alleges that the inventors "conceived of promotion codes that could track target responses, offering insight previously unavailable to marketers." Compl. ¶ 66. But promotion codes are an unclaimed feature that cannot provide an inventive concept. Moreover, courts have repeatedly held that using a unique code to track access or behavior is an abstract idea. *E.g.* S*ecured Mail*, 873 F.3d at 907, 912 (claims directed to "verifying the authenticity of a mail object" using a "unique identifier" were abstract and patent-ineligible); *Inventor Holdings, LLC v. Bed Bath & Beyond Inc.*, 123 F. Supp. 3d 557, 559-60 (D. Del. 2015) (invalidating claims directed to processing remote payments via presentation of an associated "code" at a local retailer).

In short, none of the supposedly inventive concepts identified by IBM—an allegedly unconventional template, a "bottom up" structure, and promotion codes—are captured by the claim language. And even if they were captured by the claims (and even assuming that they are,

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[3] IBM's complaint also occasionally appears to suggest that part of the supposedly inventive bottom up approach is using a search query produced *by an advertising recipient* to filter promotions and thereby provide that recipient with targeted advertising. *See* Compl. ¶ 61 ("By leveraging information about a target recipient, such as using a search query that the recipient itself had generated, a collection of highly relevant promotion instances could be delivered"); ¶ 67 (showing arrow from "customers" to the "repository" of promotions). That concept is not mentioned in the specification, which consistently indicates that the claimed "search queries" are input by marketers using the software. It certainly is not captured by the claim language, which provides for "receiving … a search query" without limiting the query's source. And, even if the claims did somehow capture the concept of filtering promotions based directly on a customer search query (it does not), numerous cases involving targeted advertising demonstrate that filtering content based on data provided by consumers is an abstract idea. *Supra* 8-9.

as IBM alleges, unconventional) they are abstract ideas.  The claims therefore fail to include an inventive concept under *Alice* step two.

> **C.**      **The Other Claims Add Nothing Of Patentable Significance**

Claim 1 is the only claim specifically asserted in the Complaint, *see* Compl. ¶ 145, and plaintiff's lengthy allegations regarding the supposed inventiveness of the '904 patent do not cite, mention, or describe any dependent claim, *see* Compl. ¶¶ 53-68.  To the extent plaintiff disputes the representativeness of claim 1, however, there is no doubt that the additional claims of the '904 patent are directed to the same abstract idea and include no inventive concept.

- Independent claims 11 and 21 recite a "computer program product" that undertakes the steps of claim 1.  Claim 21 further provides for a "processor" and a "memory" storing the computer program.  This invocation of generic computer elements does not change the § 101 analysis. *See supra* 12, 14.

- Dependent claims 2 and 12 add an **additional round of filtering** within the "assigning" step and provide that promotion instances are added to the promotion list "**at runtime**."  But, as explained above (at 9-10), filtering data is an abstract idea.  And specifying a particular time for an action (runtime) does nothing to change the abstractness of the underlying data manipulation.  The steps are still data manipulation and could still be performed by a human being, albeit less quickly.  And even if "runtime" were understood to convey increased speed, using a computer to increase efficiency is not an inventive concept and does not remove the claims from the realm of abstractness.  *See, e.g.*, *Capital One I*, 792 F.3d at 1367.

- Dependent claims 3 and 13 add a **graphical user interface**.  Specifically, they provide that the "assigning" step comprises "displaying … [the] promotion instances … in a searchable and browsable view" and "adding" them to the promotions list "from the searchable and browsable

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view."   But the Federal Circuit has repeatedly recognized that "graphical user interface"

elements are "well-known computer components" that do not save a claim from abstraction or

constitute an inventive concept.  *See id.* at 792 F.3d at 1368-69.

- Dependent claims 4-6, 9, 14-16, and 19 merely add **additional filtering and data manipulation steps**.  Again, precedent confirms that claims focused on "collecting information … and displaying certain results of the collection" "fall into a familiar class of claims 'directed to' a patent-ineligible concept."  *Elec. Power Grp.*, 830 F.3d at 1352-54.

- Dependent claims 7 and 17 provide for a **security policy** that limits "which users are allowed to interact with the promotion list."   But courts have consistently recognized that limiting access to data is itself an abstract idea, *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 716 (Fed. Cir. 2014) ("Adding routine additional steps such as … restrictions on public access … does not transform an otherwise abstract idea into patent eligible subject matter."), and the claims offer no technical detail that might alter the nature of that additional abstract idea.

- The remaining claims add **trivial, non-technical details** regarding the content of the underlying data that do not alter the nature of the abstract idea to which the claims are directed.  Specifically, dependent claims 8 and 18 provide that the "promotion list" must have a name, an icon, and a description.  And dependent claims 10 and 20 provide that the "one or more promotion instances" assigned to the promotion list must include at least two, non-identical promotion instances.

In sum, the other claims, like representative claim 1, are directed to the abstract idea of

generating and organizing promotion data.  They do not purport to recite any specific improvement

in technology and do not change the patent eligibility calculus

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## V.      CONCLUSION

For the foregoing reasons, Zynga respectfully requests that the Court grant its motion, and hold that the '904 patent is invalid under Section 101.

Zynga further requests that the Court dismiss the fourth cause of action *with prejudice*. Plaintiff has already offered eight pages of allegations regarding the supposed inventiveness of the '904 patent, Compl. ¶¶ 53-68, but clear precedent shows that each claim element is abstract and non-inventive.  Dismissal without leave to amend is proper where, as here, there is no chance that further allegations would change the outcome.  *See Fast 101 Pty Ltd. v. Citigroup Inc.*, 424 F. Supp. 3d 385, 393 (D. Del. 2020) (dismissing complaint under § 101 without leave to amend).

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Dated: June 23, 2022

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